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013933534 **Image available**

WPI Acc No: 2001-417748/200144

Related WPI Acc No: 2001-389882

XRAM Acc No: C01-126218

New stable anhydrous mirtazapine crystals with low hygroscopicity useful
as antidepressants

Patent Assignee: SUMIKA FINE CHEM CO LTD (SUMO)

Inventor: IISHI E; IMAMIYA Y

Number of Countries: 023 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week

WO 200138329 A1 20010531 WO 2000JP4835 A 20000719 200144 B

AU 200060199 A 20010604 AU 200060199 A 20000719 200153

Priority Applications (No Type Date): JP 200067476 A 20000310; JP 99333049
A 19991124

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200138329 A1 J 37 C07D-471/14

Designated States (National): AU CA IN JP US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE

AU 200060199 A C07D-471/14 Based on patent WO 200138329

Abstract (Basic): WO 200138329 A1

NOVELTY - New anhydrous mirtazapine crystals have a moisture
absorption of upto 0.6 wt.% when stored for 500 hours in air at
25degreesC, 75% relative humidity and atmospheric pressure.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for
crystalline mirtazapine hydrate of formula (I).

n=1-5.

USE - Mirtazapine is used as an antidepressant.

ADVANTAGE - Stable anhydrous mirtazapine crystals with low
hygroscopicity can be prepared simply on an industrial scale.

pp; 37 DwgNo 0/10

Technology Focus:

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: Anhydrous
mirtazapine crystals are prepared by drying mirtazapine hydrate
crystals. Mirtazapine hydrate crystals are prepared by crystallizing
crude mirtazapine from a water soluble solvent and water.

Title Terms: NEW; STABILISED; ANHYDROUS; CRYSTAL; LOW; HYGROSCOPIC;
USEFUL;

ANTIDEPRESSANT

Derwent Class: B02

International Patent Class (Main): C07D-471/14

International Patent Class (Additional): A61K-031/55; A61P-025/24

File Segment: CPI

Manual Codes (CPI/A-N): B06-D18; B12-M06; B12-M11H; B14-J01A1

Chemical Fragment Codes (M2):

01 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
M904 M905 N511 N512 N513 N520 Q620 R032 RA4CW5-N RA4CW5-P 47078
02 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
M904 M905 N511 N512 N513 N520 Q620 R032 RA4CVU-N RA4CVU-P 47078
03 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
M904 M905 N511 N512 N513 N520 Q620 R032 RA4CVX-N RA4CVX-P 47078
04 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
M904 M905 N511 N512 N513 N520 Q620 R032 RA4CW2-N RA4CW2-P 47078
05 C108 C550 C800 C801 C802 C803 C804 C805 C807 D012 E330 H1 H181 H2
H201 M210 M211 M273 M281 M320 M411 M511 M520 M530 M540 M710 M720
M904 M905 N511 N512 N513 N520 Q620 R032 RA4CW4-N RA4CW4-P 47078

Ring Index Numbers: ; 47078; 47078; 47078; 47078; 47078

Specific Compound Numbers: RA4CW5-N; RA4CW5-P; RA4CVU-N; RA4CVU-P;
RA4CVX-N

; RA4CVX-P; RA4CW2-N; RA4CW2-P; RA4CW4-N; RA4CW4-P

Key Word Indexing Terms:

01 101069-0-0-4-CL, NEW, PRD 101069-0-0-5-CL, NEW, PRD
101069-0-0-1-CL, NEW, PRD 101069-0-0-2-CL, NEW, PRD
101069-0-0-3-CL, NEW, PRD

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Basic Patent (No,Kind,Date): WO 200138329 A1 20010531 <No. of Patents:
004>

PATENT FAMILY:

AUSTRALIA (AU)

Patent (No,Kind,Date): AU 200060199 A5 20010604

ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR PRODUCING THE
SAME

(English)

Patent Assignee: SUMIKA FINE CHEMICALS CO LTD
Author (Inventor): IISHI EIICHI; IMAMIYA YOSHIYUKI
Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
20000310; WO 2000JP4835 W 20000719
Applic (No,Kind,Date): AU 200060199 A 20000719
IPC: * C07D-471/14; A61K-031/55; A61P-025/24
CA Abstract No: * 135(01)012412E; 135(01)012413F
Language of Document: English
Patent (No,Kind,Date): AU 200074471 A5 20010604
ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR THE PRODUCTION
THEREOF

(English)
Patent Assignee: SUMIKA FINE CHEMICALS CO LTD
Author (Inventor): IISHI EIICHI; IMAMIYA YOSHIYUKI
Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
20000310; WO 2000JP4835 A 20000719; WO 2000JP6687 W 20000928
Applic (No,Kind,Date): AU 200074471 A 20000928
IPC: * C07D-471/14; A61K-031/55; A61P-025/24
CA Abstract No: * 135(01)012412E; 135(01)012413F
Language of Document: English

UNITED STATES OF AMERICA (US)

Legal Status (No,Type,Date,Code,Text):

US 2000697329 A 20001027 US REFW CORRESPONDS TO PCT
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WO 200138329 P
US 2000697329 A 20001027 US REFW CORRESPONDS TO PCT
APPLICATION (ENTSPRICHT PCT ANMELDUNG)
WO 200138330 P

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Patent (No,Kind,Date): WO 200138329 A1 20010531

ANHYDROUS MIRTAZAPINE CRYSTALS AND PROCESS FOR PRODUCING THE
SAME

(English)

Patent Assignee: SUMIKA FINE CHEMICALS CO LTD (JP); IISHI EIICHI
(JP); IMAMIYA YOSHIYUKI (JP)
Author (Inventor): IISHI EIICHI (JP); IMAMIYA YOSHIYUKI (JP)
Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
20000310
Applic (No,Kind,Date): WO 2000JP4835 A 20000719
Designated States: (National) AU; CA; IN; JP; US (Regional) AT; BE;
CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE
Filing Details: WO 100000 With international search report
IPC: * C07D-471/14; A61K-031/55; A61P-025/24

CA Abstract No: ; 135(01)012412E
 Language of Document: Japanesc
 Patent (No,Kind,Date): WO 200138330 A1 20010531
 ANHYDROUS MIRTAPINE CRYSTALS AND PROCESS FOR THE PRODUCTION
 THEREOF
 (English)
 Patent Assignee: SUMIKA FINE CHEMICALS CO LTD (JP); IISHI EIICHI
 (JP); IMAMIYA YOSHIYUKI (JP)
 Author (Inventor): IISHI EIICHI (JP); IMAMIYA YOSHIYUKI (JP)
 Priority (No,Kind,Date): JP 99333049 A 19991124; JP 200067476 A
 20000310; WO 2000JP4835 W 20000719
 Applic (No,Kind,Date): WO 2000JP6687 A 20000928
 Designated States: (National) AU; CA; IN; JP; US (Regional) AT; BE;
 CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE
 Filing Details: WO 100000 With international search report
 IPC: * C07D-471/14; A61K-031/55; A61P-025/24
 CA Abstract No: ; 135(01)012413F
 Derwent WPI Acc No: ; C 01-389882
 Language of Document: Japanese

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Legal Status (No,Type,Date,Code,Text):

WO 200138329 P 19991124 WO AA PRIORITY (PATENT)
 JP 99333049 A 19991124
 WO 200138329 P 20000310 WO AA PRIORITY (PATENT)
 JP 200067476 A 20000310
 WO 200138329 P 20000719 WO AE APPLICATION DATA (APPL.
 DATA)
 WO 2000JP4835 A 20000719
 WO 200138329 P 20001027 WO ENP ENTRY INTO THE NATIONAL
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 US 697329 A 20001027
 WO 200138329 P 20010531 WO AK DESIGNATED STATES CITED IN A
 PUBLISHED APPLICATION WITH SEARCH REPORT
 (DESIGNATED STATES CITED IN A PUBLISHED APPL.
 WITH SEARCH REPORT)
 AU CA IN JP US
 WO 200138329 P 20010531 WO AL DESIGNATED COUNTRIES FOR
 REGIONAL PATENTS CITED IN A PUBLISHED
 APPLICATION WITH SEARCH REPORT (DESIGNATED
 COUNTRIES FOR REGIONAL PATENTS CITED IN A
 PUBLISHED APPL. WITH SEARCH REPORT)
 AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC
 NL PT SE
 WO 200138329 P 20010531 WO A1 PUBLICATION OF THE

INTERNATIONAL APPLICATION WITH THE
INTERNATIONAL SEARCH REPORT (PUB. OF THE
INTERNATIONAL APPL. WITH THE INTERNATIONAL
SEARCH REPORT)

- WO 200138329 P 20010725 WO 121 EP: THE EPO HAS BEEN
INFORMED BY WIPO THAT EP WAS DESIGNATED IN
THIS APPLICATION
- WO 200138330 P 19991124 WO AA PRIORITY (PATENT)
JP 99333049 A 19991124
- WO 200138330 P 20000310 WO AA PRIORITY (PATENT)
JP 200067476 A 20000310
- WO 200138330 P 20000719 WO AA PCT-APPLICATION (PCT-APPL.)
WO 2000JP4835 W 20000719
- WO 200138330 P 20000928 WO AE APPLICATION DATA (APPL.
DATA)
WO 2000JP6687 A 20000928
- WO 200138330 P 20001027 WO ENP ENTRY INTO THE NATIONAL
PHASE IN:
US 697329 A 20001027
- WO 200138330 P 20010531 WO AK DESIGNATED STATES CITED IN A
PUBLISHED APPLICATION WITH SEARCH REPORT
(DESIGNATED STATES CITED IN A PUBLISHED APPL.
WITH SEARCH REPORT)
AU CA IN JP US
- WO 200138330 P 20010531 WO AL DESIGNATED COUNTRIES FOR
REGIONAL PATENTS CITED IN A PUBLISHED
APPLICATION WITH SEARCH REPORT (DESIGNATED
COUNTRIES FOR REGIONAL PATENTS CITED IN A
PUBLISHED APPL. WITH SEARCH REPORT)
AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC
NL PT SE
- WO 200138330 P 20010531 WO A1 PUBLICATION OF THE
INTERNATIONAL APPLICATION WITH THE
INTERNATIONAL SEARCH REPORT (PUB. OF THE
INTERNATIONAL APPL. WITH THE INTERNATIONAL
SEARCH REPORT)
- WO 200138330 P 20010628 WO DFPE REQUEST FOR PRELIMINARY
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MONTH FROM PRIORITY DATE
- WO 200138330 P 20010725 WO 121 EP: THE EPO HAS BEEN
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THIS APPLICATION
- WO 200138330 P 20011114 WO ENP ENTRY INTO THE NATIONAL
PHASE IN:
JP 5493 A